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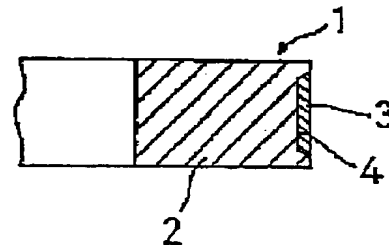
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APPLICANT : RIKEN CORP;

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TITLE : FLAME SPRAYED PISTON RING



ABSTRACT : PURPOSE: To provide a flame sprayed piston ring having a flame sprayed film which is excellent in wear resistance and weak in attacking ability to an opposite material by providing an outer peripheral sliding face with a plasma flame sprayed film composed of fine chrome carbide, molybdenum, and nickel-chrome alloy whose quantities are fixed.

CONSTITUTION: A flame sprayed piston ring 1 has a plasma flame sprayed film 3 composed of 3 to 25% in weight of fine chrome carbide, 30 to 80% in weight of molybdenum and 10 to 40% in weight of nickel-chrome alloy at least on an outer peripheral sliding face. Thus the fine chrome carbide included in the flame sprayed film 3 heightens the hardness and rigidity of the film 3 and improves its wear resistance. In addition, since the grain of chrome carbide is fine, its attacking ability to an opposite material is low. Molybdenum improves the wear resistance and antiseizure ability of the film 3 and effectively affects so as to improve the hardness and anticorrosion at high temperature. The chrome-nickel alloy is usefull to improve the acid resistance and anticorrosion of the film 3.

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